

arches of crimson light and radiations from an auroral crown near the zenith. Here it was noted as being the most brilliant display since March 22, 1920. At Norfolk, Va., there were small patches of red light; and at Augusta and Savannah, Ga., faint pink to darker red glows.

A number of ships reporting to the Weather Bureau or to the Hydrographic Office, indicate the wide extent of the phenomenon as witnessed on the North Atlantic. Some sections of the ocean were heavily clouded, which prohibited a view, while others were partly clouded to clear. In partly obscured areas the spectacle was enhanced by comparison with cumulonimbus or other dark clouds.

A tentative charting of ships' auroral observations for the Atlantic covers the region extending from near the west coast of Portugal west-southwestward nearly to Bermuda and farther southward and westward almost to the Bahamas. The most southerly observation found is that

reported by Third Officer W. Chapman, of the British motorship *Northern Prince*, New York to Rio Janeiro. While, in his special report, this observer did not give the ship's position on the evening of the 25th, yet the local noon positions given for the 25th (27°13' N., 58°37' W.) and 26th (22°13' N., 53°51' W.) indicate that the 2 hours' auroral display was seen on ship at approximately the twenty-fifth parallel. Almost as far south, but much farther to the eastward, in 29°20' N., 31°47' W., the phenomenon was reported by the French steamer *Commissaire Ramel*. The westernmost Atlantic observations of the aurora was received by the Hydrographic Office from the Greek steamer *Adamas* and the Dutch steamer *Nederland*. Both ships on the evening of the 25th were in or within a few minutes of 27° N., 71°10' to 71°57' W. Third Officer A. Bijl, of the *Nederland*, reported a remarkably red sky extending to an altitude of 35°.

## BIBLIOGRAPHY

[RICHMOND T. ZOCH, in Charge of Library]

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### RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

#### American institute of electrical engineers.

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